

(No Model.)

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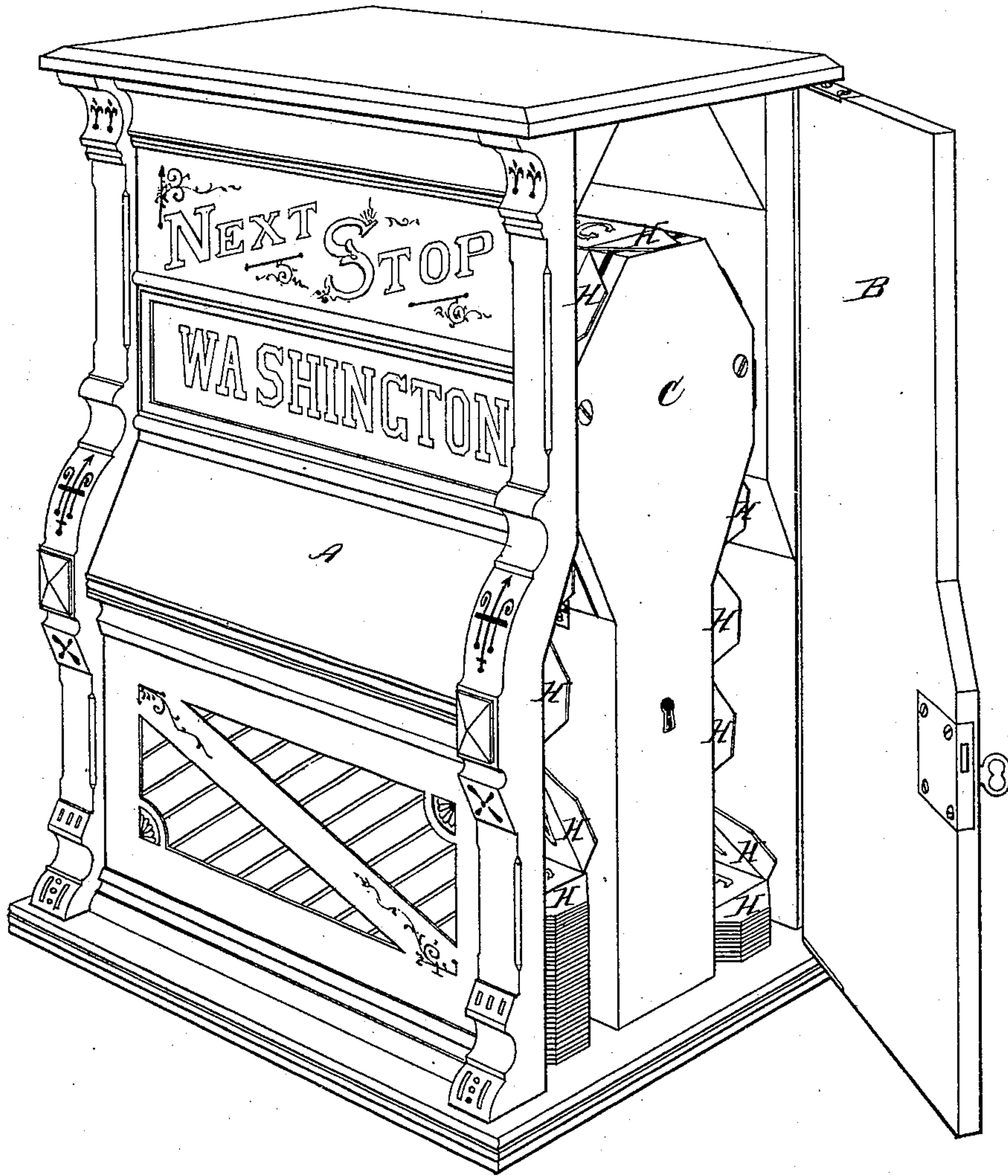
E. S. BOYNTON.

Station Indicator and Exhibiting Case.

No. 241,283.

Patented May 10, 1881.

Fig. 1.



Witnesses
Joseph H. Hurd
John M. Ripley

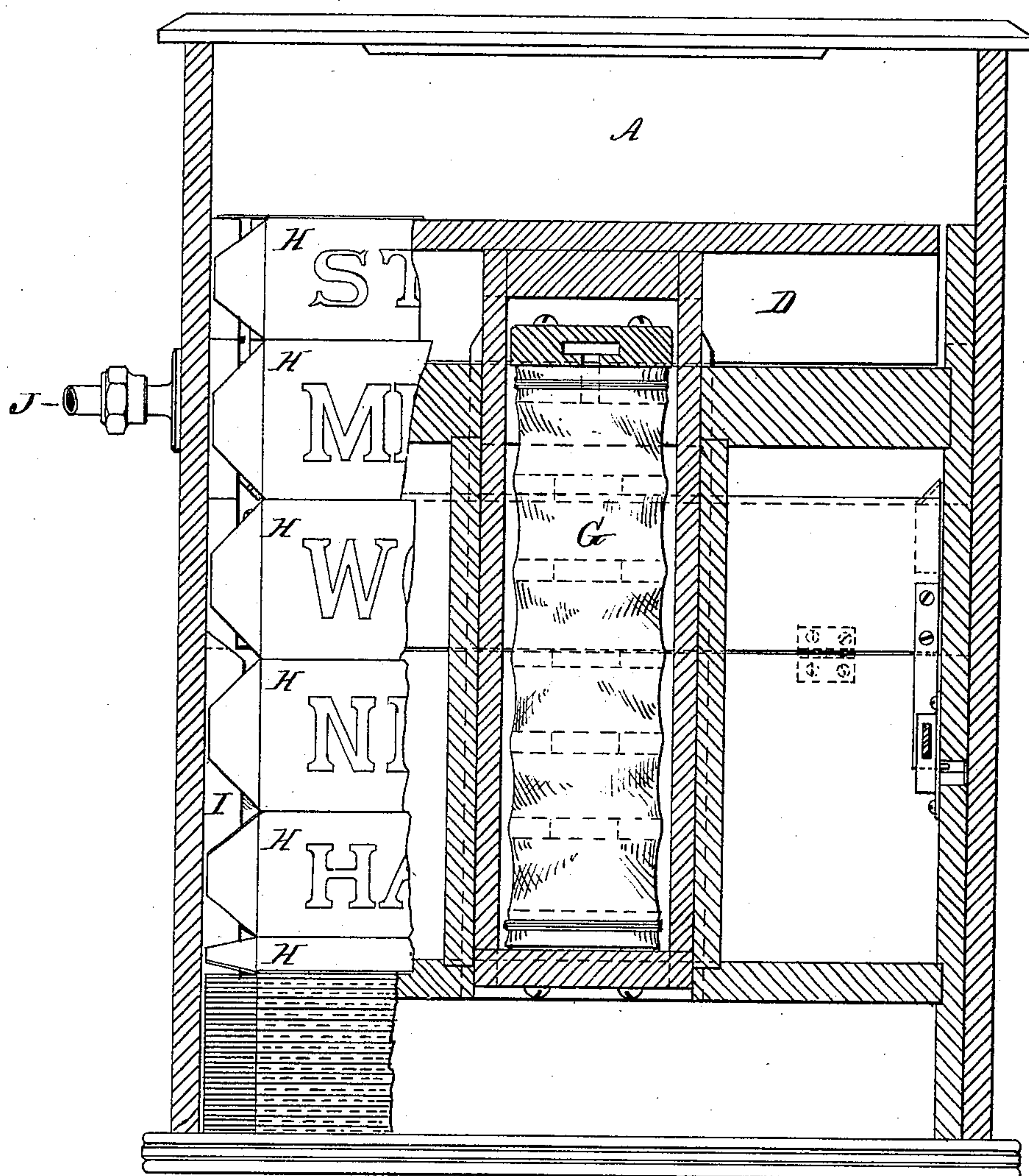
Inventor
Edward Stanley Boynton
by J. J. Gordon Atty.

(No Model.)

5 Sheets—Sheet 2.

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Fig 2.



Witnesses,
Joseph Murray
John M. Ripley

Inventor,
Edward Stanley Boynton
by *L. J. Gordon, Atty.*

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Fig. 3.

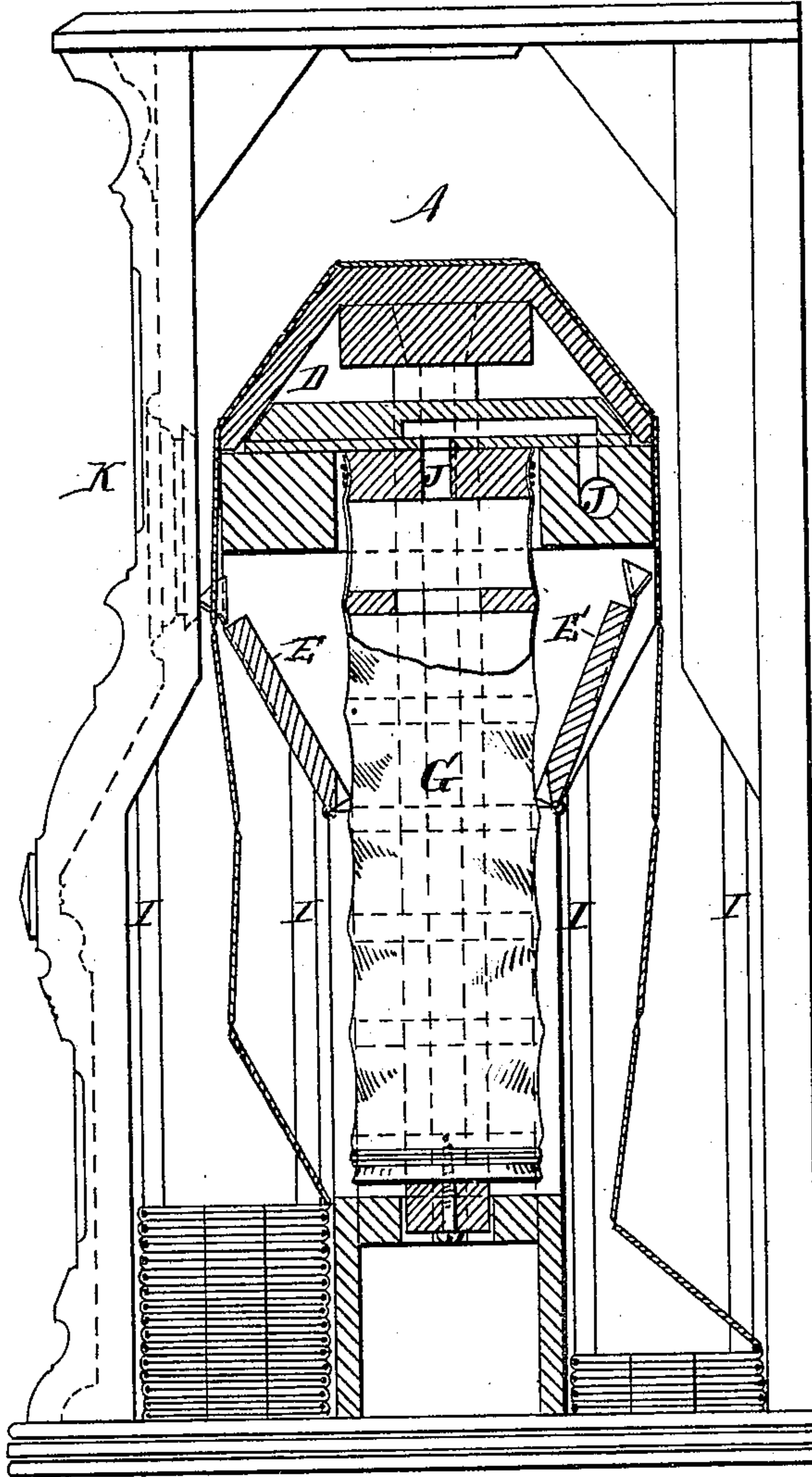
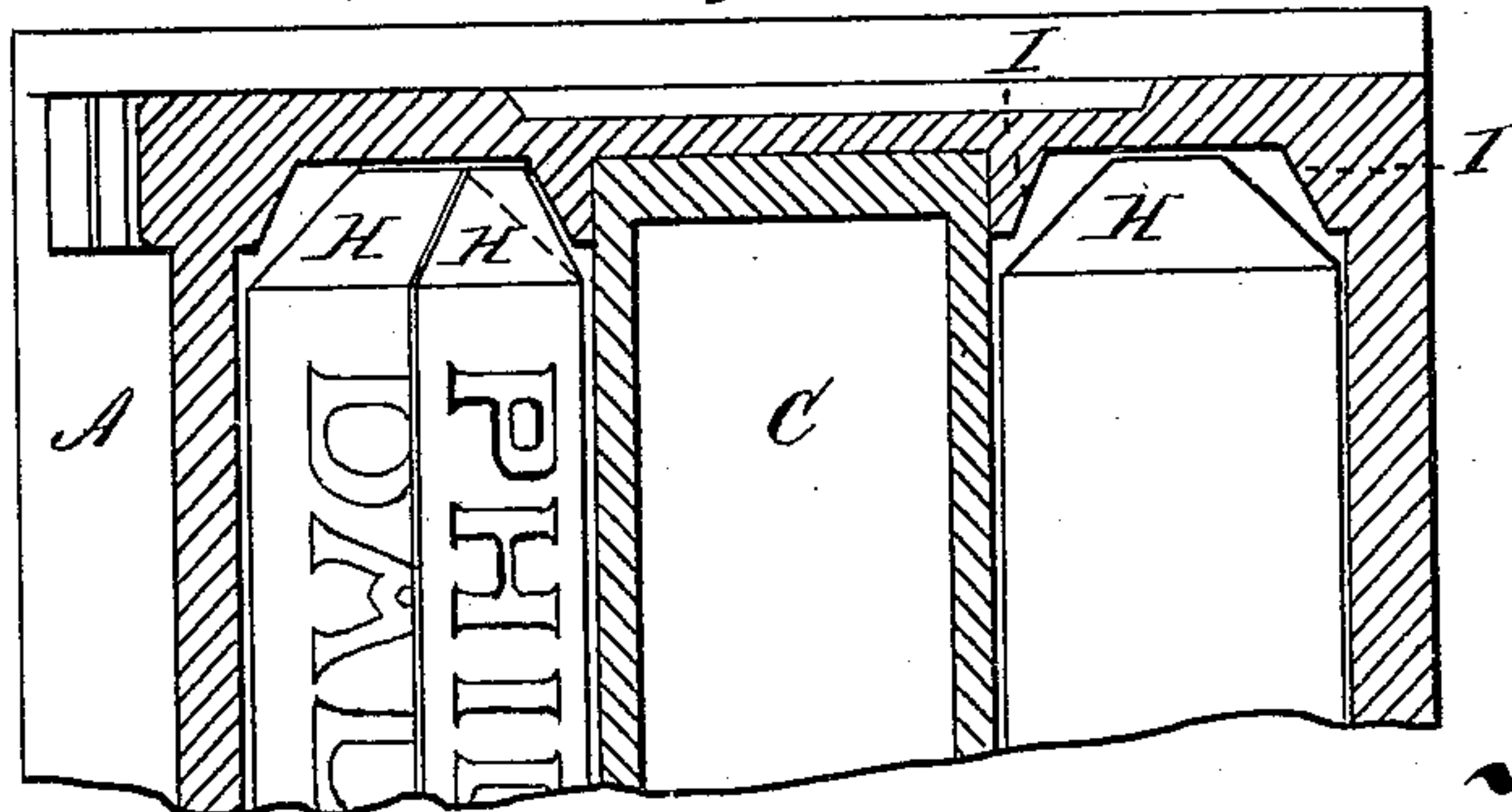


Fig. 4.



Witnesses:
Joseph Murray
John M. Sibley

Inventor:
Edward Stanley Boynton
by L. J. Gordon Atty.

(No Model.)

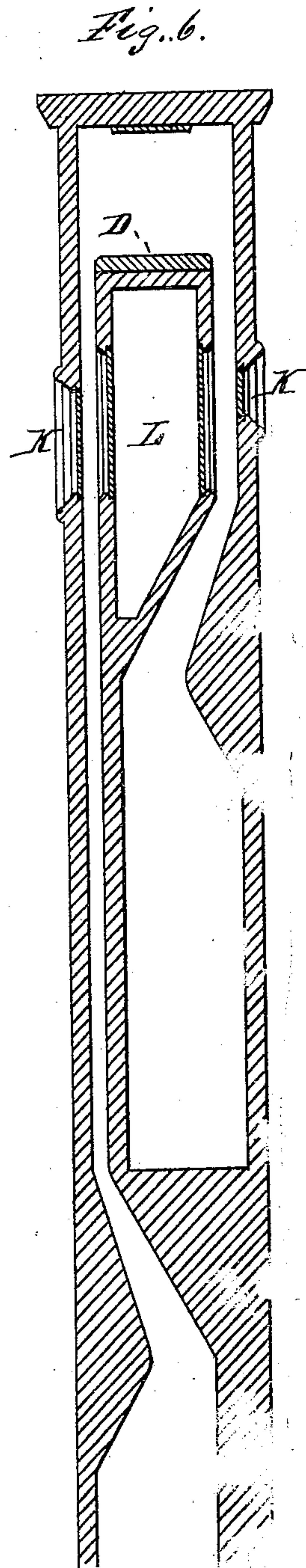
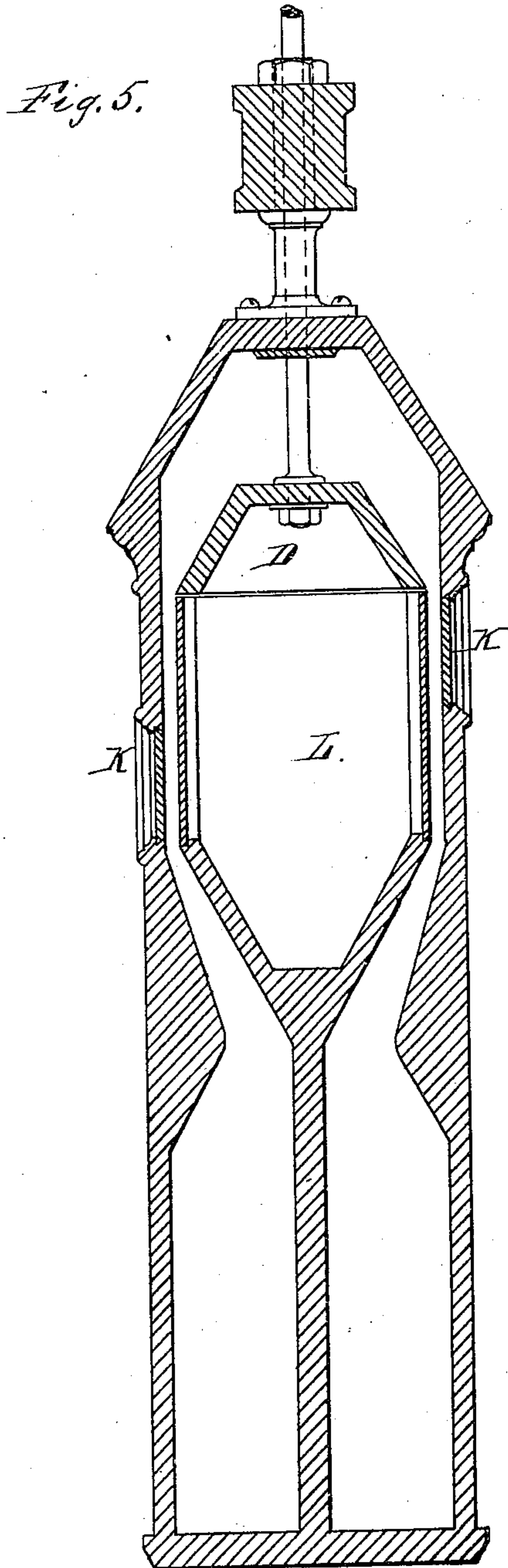
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Witnesses.
Joseph H. H. H.
John M. H. H.

Inventor,
Edward Stanley Boynton
by J. J. Gordon, Atty.

(No Model.)

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Fig. 7.

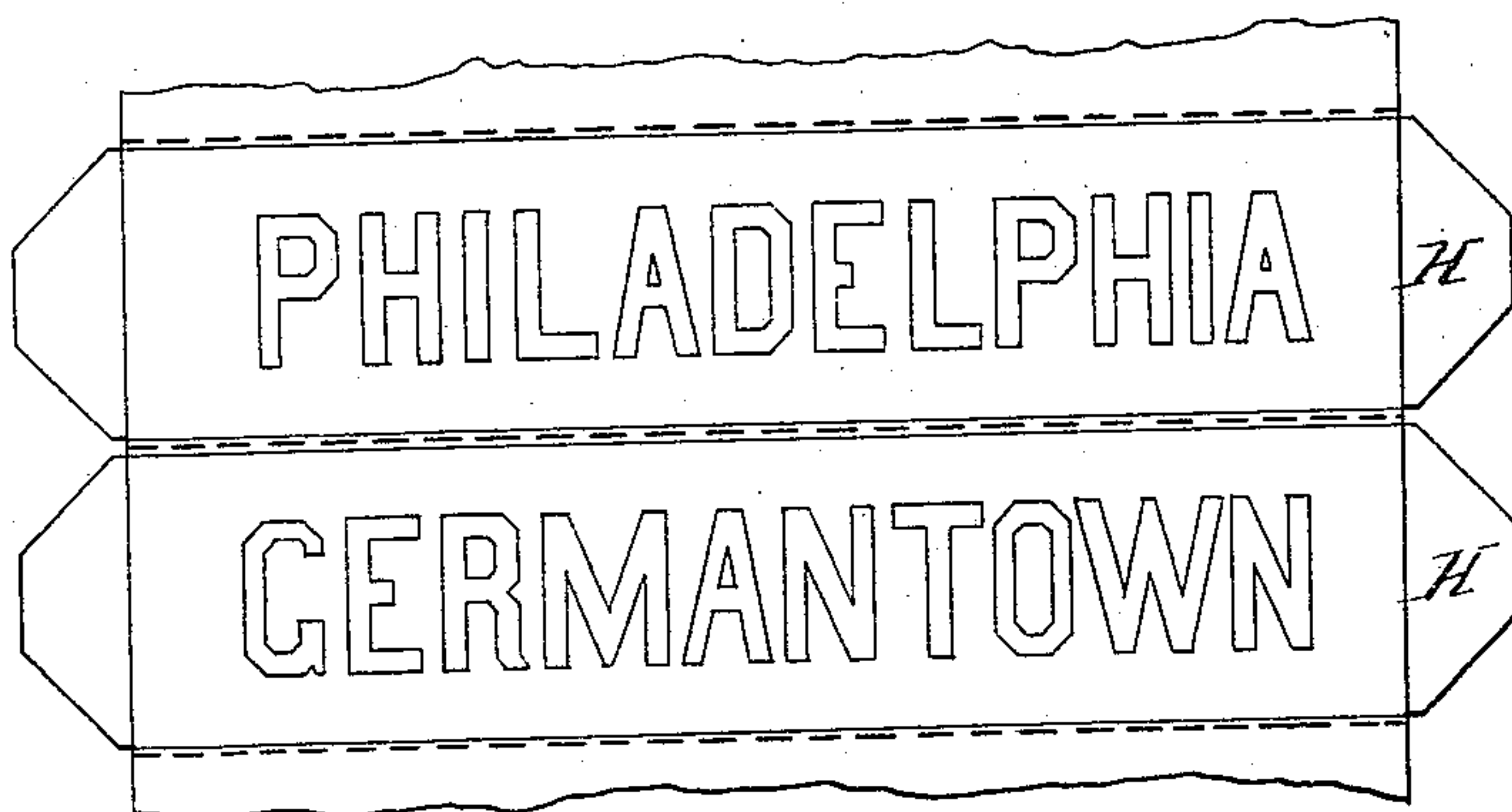
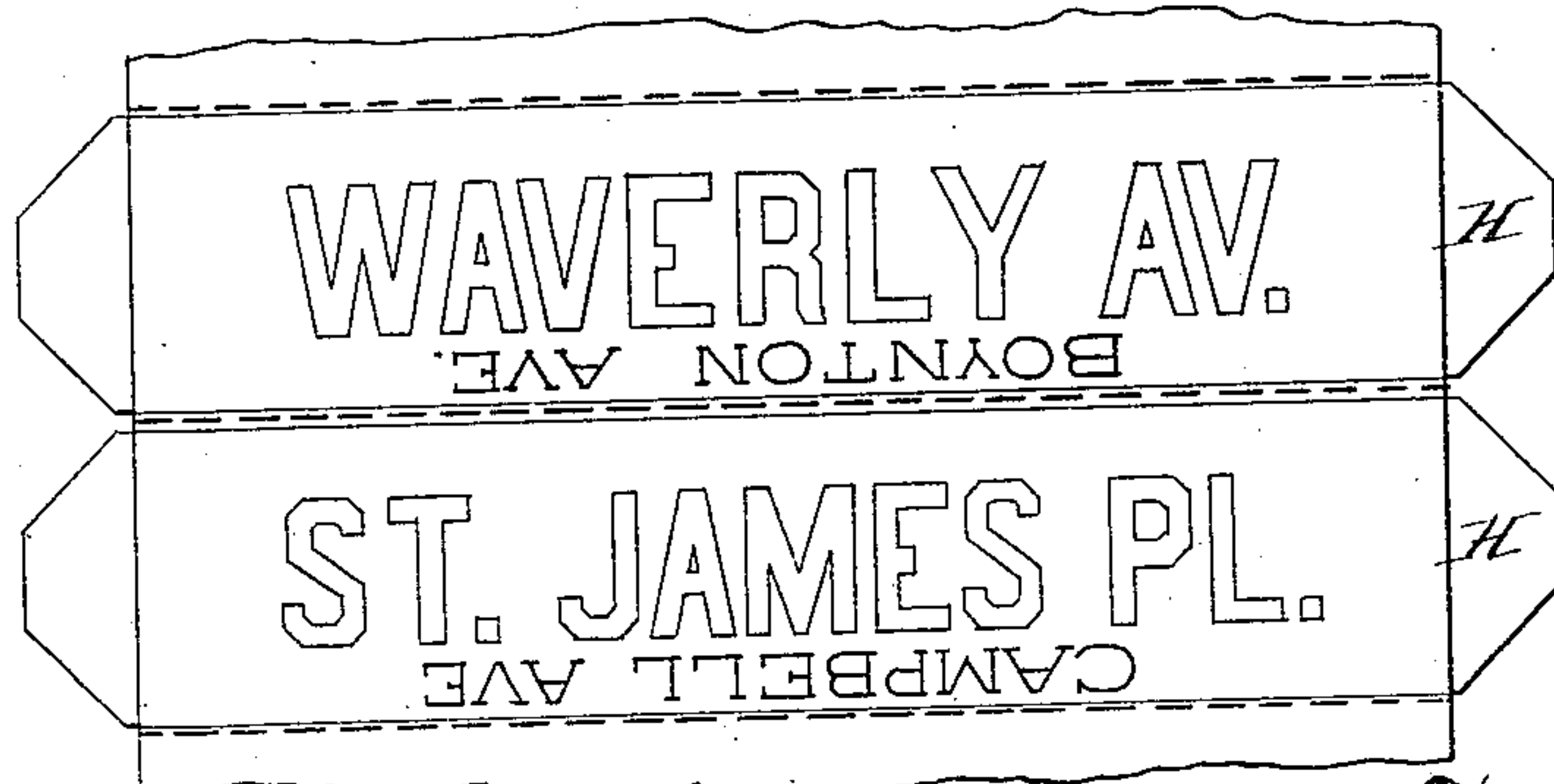


Fig. 8.



Fig. 9.



Witnesses:

*Joseph Munnell
John M. Riple*

Inventor.

*Edward Stanley Boynton
by L. J. Gordon Atty.*

UNITED STATES PATENT OFFICE

EDWARD S. BOYNTON, OF BRIDGEPORT, CONNECTICUT.

STATION-INDICATOR AND EXHIBITING-CASE.

SPECIFICATION forming part of Letters Patent No. 241,283, dated May 10, 1881.

Application filed May 11, 1880. (No model.)

To all whom it may concern:

Be it known that I, EDWARD STANLEY BOYNTON, of Bridgeport, county of Fairfield, State of Connecticut, have invented a new and Improved Station-Indicator and Exhibiting-Case, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my improved exhibiting-case with the door open. Fig. 2, a front elevation, partly in section; Fig. 3, an end view in section; Fig. 4, a top-plan view of card-piling mechanism; Figs. 5 and 6, sectional modifications adapted to exhibiting on the front and rear of the case; Fig. 7, views of the cards adapted to use with cases shown in Figs. 1, 2, 3, and 4; Fig. 8, views of same adapted to use with case shown in Fig. 5; Fig. 9, views of same adapted to use with case shown in Fig. 6.

The object of my invention is to provide a convenient and positively-operating exhibiting-case for use in railway trains and stations, stereopticons, elevators, and any places where immediate and varying information by sight is desired; and its principal peculiarity is in the card-piling mechanism and direct-acting card-elevator, which unfailingly brings the card opposite the opening of indication and leaves it there with no chance of mistake.

A is the exterior case; B, its door; C, the center case supporting card-elevator D; E E', the card-stops; G, the vacuum-cylinder; H H, the cards; I I, the folding corners; J, the air-passage to vacuum-cylinder; K, the opening; L, the illuminating-chamber.

I construct an outside case of suitable material of sufficient size to receive two piles of cards, allowing space in the center between the piles for a card-elevator and the necessary mechanism to operate it. In this outside case one or more openings are left at the points where the exhibit is to be made. It is also provided with a door in one end to allow the placing and removal of the card-piles. The sides of the case internally are so formed as to deliver the cards to be piled centrally over the pile already formed at the bottom of the case.

It will be seen by reference to the drawings that in some of the cases shown I have made the outside of the case to conform to the outlines of the interior. This is, however, a matter

only of symmetry and not essential to the operation of my invention. In the center of this outside case I construct a partition of suitable width to support a card-elevator provided at the top with a table or flat surface equal to the superficial dimensions of the exhibiting-cards. In some of the drawings it is shown as three sides of a hexagon. The latter is used when the mechanism operating the card-elevator is of a greater cross-section than the width of the exhibiting-cards, as in Fig. 1, and when it is desired to illuminate the cards, as in Fig. 5. The card-elevator is guided by two rods affixed to it sliding in grooves in the central partition. A cross-head connects these rods at their lower end. At the top of this central partition is a platform of equal length and width of the card-elevator, which it supports in its lower position, and supports the grooves in which the card-elevator rods move up and down.

In Fig. 1 the platform is constructed of sufficient thickness to allow air-passages to be made from the outside of the case to and through a cross-head of a collapsing-cylinder, secured to the top of the platform and extending down between the guide-rods and the lower head affixed to the cross-head at the lower end of the same. This cylinder is constructed of leather, rubber, or any suitable flexible material secured to rigid heads and provided in the interior with rigid rings, to prevent collapsing at the time of operation.

The card-stops are constructed of a heavy material extending the whole length of the central partition on both sides of the same and affixed to it by pintles or hinges. At each end of these stops are projections, which fall under the card or through the opening at the angular ends of the same and rest against the inside of the outer case. This operation is entirely automatic. The card-stops are provided with a lever extending below the hinges or pintles, which is curved to allow space between the levers to place the bolt of an ordinary tumbler-lock, the levers resting upon the opposite ends of the lock-bolt. When this bolt is locked one of the card-stops is thrown out of the path of rising and falling cards, while the other is left free to automatically stop the descent of the cards on the opposite side. When the bolt is unlocked this condition of levers is reversed.

The operation is as follows: The cards are

made of a size corresponding to the opening where they are to be exhibited, preferably of tin inclosed in cloth cases united to each other at top and bottom, the corners of the tins being cut at opposite angles, so that the lower halves of the cards always strike folding corners I I, when gravity causes them to fall flat, leaving the succeeding card exposed at opening K. The continuous cards H H are placed in the front of the box and led over the top of card-elevator D and down behind it to the bottom of case A in sufficient number to form a pile thereon. Card-elevator D is now lifted, either by a vacuum or pressure cylinder, as shown, or by a rod or any convenient method suitable for the purpose. As it rises it lifts a card from each pile. As the front card rises above stop E it falls beneath such card and supports it in place behind opening K. Card-elevator D is now dropped and two cards fall to the rear pile by gravity, the angles of the cards and the opposite folding corners I I securing their fall in a pile alternately to the front and rear. When desired, the contrivance is run backward with like effect by simply reversing the positions of stops E E', which may be done by any of the well-known means for such purpose.

In Figs. 5 and 6 openings for indication are shown at front and rear, and the cases are adapted for illumination by a light in chamber L, transparent cards being employed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a rising-and-falling elevator, a chain of hinged cards, and a pivoted stop, constructed to operate together, substantially as and for the purpose described.

2. The combination of a pile of hinged cards projecting longitudinally at the center of each end, folding corner-pieces, rising-and-falling erating together, substantially as and for the card-elevator, and one or more card-stops, of purpose described.

3. The combination of a card-elevator, a chain of hinged cards, and a vacuum or pressure cylinder constructed and operating together, substantially as and for the purpose described.

EDWARD STANLEY BOYNTON.

Witnesses:

S. J. GORDON,

JOHN W. RIPLEY.